

IN THE CLAIMS

Please cancel claims 1 through 20, and, in their place,
insert new claims 21 through 40.

Claims 1 through 20 (cancelled).

21. (new) An item locator system having both voice activation and voice responsive capabilities for location feedback to locate one or more specific items, which comprises:

- a.) a plurality of sets of different items, each set having at least one item therein, each set having at least one item therein, each set having a specified location, and each set having its own unique item-identifying bar code, with at least one item of each set having said unique item-identifying bar code located thereon;
- b.) a plurality of specified locations, each location having at least one of said plurality of sets of different items located thereon, each location of said plurality of locations having a unique location -identifying bar code, each of said plurality of locations having a said unique location-identifying bar code physically situated thereon;
- c.) a support structure, for physically supporting said system at one or more locations, and functionally containing or connected to the following components:

- d.) a continuous speech recognition digital signal processor (DSP);
- e.) a programmable microprocessor interfaced with said speech recognition DSP;
- f.) sufficient programming and circuitry contained within said programmable microprocessor to provide for voice activation and voice recognition and response, and having item-identification/corresponding location-identification-identification data pairs obtained from said unique item-identifying bar codes and said unique location-identifying bar codes, so as to provide item location information to a user;
- f.) voice input means connected to said speech recognition DSP; and,
- g.) memory storage means connected to said programmable microprocessor for storage of operational inputs, control inputs, voice recognition vocabulary for storage of command match and execute functions;
- i.) at least one user feedback unit and connection from said programmable microprocessor to said at least one user feedback unit, said at least one user feedback unit adapted to provide feedback selected from the group consisting of audio

feedback, visual feedback and combinations thereof, to a user in response to an item location query wherein said feedback is selected from the group consisting of an answer, default instructions and combinations thereof.

22. (new) The system of claim 21 wherein said unique item-identifying bar code is a universal price code.

23. (new) The system of claim 21 wherein unique item-identifying bar code is a bar code which corresponds to a location selected from the group consisting of aisle, row, shelf, bin, drawer and floor space area.

24. (new) The system of claim 21 wherein said unique item-identifying bar code is a bar code which includes code for genus data and for species data.

25. (new) The system of claim 24 wherein said genus data is row or aisle data, and said species data is bin, drawer or shelf data.

26. (new) The system of claim 21 which said programming includes software which is capable of receiving bar code

reader inputs and converting said bar code reader inputs to item-identification/corresponding location-identification data pairs for location information.

27. (new) The system of claim 21 wherein said user feedback unit includes visual display means for viewing visual feedback being selected from the group consisting of text, map and a combination thereof.

28. (new) The system of claim 21 wherein said user feedback unit includes sufficient hardware and software to provide audio feedback to a user in response to recognizable

29. (new) The system of claim 21 wherein said memory storage means further includes flash ROM storage and provides for remote diagnostics and system programming..

30 .(new) The system of claim 21 wherein said voice input means includes a microphone.

31. (new) The system of claim 21 which further includes a secured manual control panel for input and management of item and location data into said system.

32. (new) The system of claim 31 wherein said manual control panel further contains a keypad and menu for operation and programming options, a microphone, a screen for input and feedback display.

33. (new) The system of claim 21 which additional components further includes an audio feedback component which includes audio feedback hardware and software adapter to audibly respond to recognizable voice input, including digital-to-analog conversion and an output speaker.

34. (new) The system of claim 21 wherein said DSP includes a continuous speech recognition engine having a continuous speech signal recognizer and a continuous speech signal interpreter.

35. (new) The system of claim 34 wherein said continuous speech recognition engine utilizes tokens of raw acoustic signals representing utterances or words and matches these against a set of models and then relies upon likelihood to select a most likely model to decode signals for interpretation.

36. (new) The system of claim 21 which further includes at least one bar code reader connected to said microprocessor,

and said connected is selected from being directly connected and being wirelessly connected to said microprocessor.

37. (new).The system of claim 36 which further includes at least one bar code reader connected to said microprocessor, and said connected is selected from being directly connected and being wirelessly connected to said microprocessor.

38. (new) The system of claim 21 which further includes a secondary processor being adapted to receive and translate bar code reader inputs thereto and having sufficient software to create item location information by matching item-identification bar code readings and corresponding location-identification bar code readings, and to communicate with said microprocessor.

39. (new) The system of claim 38 which further includes at least one bar code reader connected to said secondary processor, and said connected is selected from being directly connected and being wirelessly connected to said secondary.

40. (new) The system of claim 38 which said secondary processor is adapted to convert said item location information into continuous speech recognition digital signals.

(a) Double Patenting

The Examiner provisionally rejected the claims under 35 U.S.C. §101, as claiming the same invention as that of claims 1 through 20 of copending Application No. 10/699,090.

(b) Claim Objection

The Examiner objected to claim 7 for insufficient antecedent basis. The Applicants respectfully submit that newly presented claim 27 overcomes this objection.

(c) Drawings Objection

The Examiner objected to the drawings because certain features in the claims were not shown in the drawings. The Applicants herein submit corrected Figure 2. showing these features in the drawing. The Applicants believe that no new matter has been added since these features are disclosed in the claims, as well as in the detailed description of the original disclosure.

(d) Claim Rejections - 35 U.S.C. §112

Claims 1 and 6 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly out and distinctly claim the subject matter which applicant regards as the invention. More

particularly, the terms "item-identification /corresponding" and "same" in claim 6 are not clearly defined.

With regard to "item-identification /corresponding", the Applicants respectfully disagree with the Examiner's objection. The meaning is that each item has an item-identification, for example bar codes (specification, page 37, lines 8 through 14) which is associated with a corresponding location which also has a location-identification for example, location bar codes (specification, page 37, lines 14 through 15). The item identification and corresponding location identification determine the data pairs wherein there is a mapping or association from the item-identification to the corresponding location-identification. The Applicants respectfully submit that this subject matter is clearly defined by the specification as stated herein immediately above.

With regard to "same" in claim 6, newly presented claim 26 clarifies the meaning to specify "said bar code reader inputs".

Claims 4 and 5 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or

use the invention. In response, the amendment to the specification provide support for genus data and species data. The Applicants believe that no new matter has been added, since the claim feature is described in the claims as originally filed.

Claims 18 and 20 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention.

In response, replacement drawing Fig. 2 illustrates the functional placement of a secondary processor with the stated features. Furthermore, an amendment to the specification herein above conforms the specification to the claims and drawings. The Applicants respectfully submit that no new matter has been added.

Claims 17 and 19 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. In response, the Applicants respectfully submit that the amendment to the specification for the claim features: The Applicants believe that no new matter has been added since the feature is disclosed by the claims as originally filed. Furthermore, replacement Fig. 2 shows the

feature.

(e) Claim Rejections - 35 U.S.C. §102

Claims 1, 2, 4, 6 through 8, 10 through 12 and 16 through 19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Burke et al. (U.S. Patent No. 6,604,681).

The Examiner stated that regarding claims 1, 2, 4, 6, 7, and 18, Burke et al. teach an item locator system, which provides item location information. He continued that item identifiers are entered via a bar code reader or a voice recognition device wherein item location information are retrieved from a database and are viewed on an LCD display.

With regard to claim 8, the Examiner stated that Burke et al. teach audio communication.

With regard to claim 10, the Examiner stated that Burke et al. teach a telephone, and voice recognition, as well as must including a microphone.

With regard to claim 11 and 12, the Examiner stated that Fig. 8 of Burke et al. teach these claims.

With regard to claim 16, 17 and 19, the Examiner stated that column 6, line 33 of Burke et al. teach these claims claim.

In response, the Applicants respectfully submit that newly presented claim 21 of the present invention fails to

be anticipated by the Burke et al. reference for the following reasons. First, claim 21 includes a newly presented feature of feedback being an answer or default instruction. Second, claim 21 of the present invention system includes a continuous speech recognition digital signal processor.

Furthermore, the Applicants respectfully requests further clarification on claim 31. The present invention provides for secured access to updating manager inputs only when an access code is valid. The Applicants does not see how the Burke et al. disclosure provides for secured manual control input.

The Applicants respectfully submit that Burke et al. does not anticipate each of the above-identified features. Furthermore, no new matter has been added. Box 11 of Fig 1 includes the feedback features claimed.. Furthermore, the Burke et al. reference does not have any teaching on a speech recognition digital signal processor (DSP). The Applicants believe that all the §102(e) rejections by the Examiner have been overcome and it is urged that the rejection be withdrawn.

(f) Claim Rejections - 35 U.S.C. §103

(1) Burke et al.

With regard to claims 3 and 5, the Examiner rejected

the claims as being unpatentable over Burke et al., as applied to claim 1 above. The Examiner stated that Burke et al. teach location information with the exception of row, bin, drawer and floor space. The Examiner tool "Official Notice" that the specific location information is old and well known in to one skilled in the art, and would have been obvious to modify Burke et al. to include the specific location information.

In response, the Applicants reiterate all the arguments with regard to Burke et al. in section (e) herein above, and also respectfully submit that the Examiner's implied teaching is not obvious because the Burke et al. system is specifically designed to include location information of aisle and shelf. There is no motivation to expand beyond this location since Burke et al. defines a database having aisle and shelf.

(2) Burke et al. in view of Miura (JP:356060959)

With regard to claim 9, the Examiner rejected the claim as being unpatentable over Burke et al., as applied to claim 1 above, and in view of Miura(JP:356060959). The Examiner stated that Burke et al. teach ROM, but fail to teach ROM storage including remote diagnostics and system programming. The Examiner further stated that Miura teaches ROMs with system programming and for diagnostics. The Examiner

postulated that it would have been obvious to modify Burke et al. to have the ROM storage provide remote diagnostics and system programming as taught by Miura.

In response, the Applicants reiterate all the arguments with regard to Burke et al. in section (e) herein above, and also respectfully submit that the combination of Baker et al. and Miura is not obvious because there is no motivation to combine Baker et al. and Miura.

There is no teaching or suggestion in the Burke et al. disclosure that the Burke et al. system could interface with the diagnostic system of Miura, As stated in the Abstract of Miura, the modules must be connected to the processor. Burke et al. is lacking on a disclosure of system programming, not to mention diagnostic system programming. Thus, the Applicants respectfully submit that there is no motivation to combine Burke et al. with Miura.

(3) Burke et al. and Suzuki et al. Rejection

With regard to claims 13 and 20, the Examiner rejected the claim as being unpatentable over Burke et al., as applied to claim 1 above, and in view of Suzuki et al. (US:2002/0149609). The Examiner stated that Burke et al. failed to teach digital-to-analog, but Suzuki et al. teach a PDA with a D/A converter. The Examiner postulated that it would have been obvious to modify Burke et al. to have the

digital-to-analog as taught by Suzuki et al.

In response, the Applicants reiterate all the arguments with regard to Burke et al. in section (e) herein above, and also respectfully submit that the combination of Baker et al. and Suzuki et al. is not obvious because audible feedback of Suzuki et al. emanates in response to video memory 70 (Fig. 3). In contrast to this, newly presented claim 23 of the present invention provides audio feedback in response to voice input. Thus, the Suzuki et al. program is different art from the present invention, and should be removed as a reference.

(4) Burke et al. and Engellenner et al. Rejection.

With regard to claim 14, the Examiner rejected the claim as being unpatentable over Burke et al., as applied to claim 1 above, and in view of Engellenner et al. (5,786,764). The Examiner stated that Burke et al. failed to teach a speech recognition engine. The Examiner further stated that Engellenner et al. teach speech processing means and likelihood processor. The Examiner postulated that it would have been obvious to modify Burke et al. to have the speech recognition engine as taught by Engellenner.

In response, the Applicants reiterate all the arguments with regard to Burke et al. in section (e) herein above, and also respectfully submit that the combination of Baker et

al. and Engellenner et al. is not obvious for the following reasons. First, the Engellenner et al. reference supports a different system than the present invention supports. And second, the combination of Baker et al. with Engellenner et al. fails to establish a prima facie showing of obviousness because of lack of motivation.

First, the Engellenner et al. reference supports a different system than the present invention supports. The Engellenner art is directed to a voice activated electronic locating system. The items that are to be located are tagged and when an item is to be located a coded interrogation signal is transmitted to one or more interrogation regions in which the signal triggers a response for the item tag. A detector within the regions senses a response from the tag signal and the location of the item is reported based on the detector's signal. Thus, Under the Engellenner system, there is no need for an item-location database.

On the other hand, the present invention includes a database of manager inputs of item and location, as now recited in newly presented claim 21. When a user desires to find a location of an item, the desired item is spoken into the voice input means and the system retrieves the location associated with that item from the manager input item location database. This is different from sensing a signal

from a tag on an item. Therefore, the Engellenner patent supports a different system from the present invention and should be removed as a reference.

And second, the combination of Baker et al. with Engellenner et al. fails to establish a prima facie showing of obviousness because of lack of motivation. As discussed in detail herein immediately above, the Engellenner et al. reference locates items by a signal received from an item physically tagged. Since the Baker et al. patent discloses an item information system in detail wherein a location of an item entered is relayed to a user through a hand held device, there is no need, nor suggestion, to utilize the speech recognition system of Engellenner et al.

(5) Baker et al. and Engellenner et al.
and Stubley et al. Rejection

With regard to claim 15, the Examiner stated that Burke et al. in view of Engellenner et al. failed to teach utilizing tokens of raw acoustic signals. He stated that Stubley et al. teach each word in the vocabulary being represented by a string of HMM model, one for each phoneme in the word. He asserted that it would have been obvious to one skilled at the time the invention was made to modify Burke et al. in view of Engellenner et al. to have utilizing tokens of raw acoustic signals as taught by Stubley et al.

In response, the Applicants reasserts all the arguments

in section (4) above in reference to the combination of Baker et al. and Engellenner et al., and also submit that the additional combination with Stubley et al. fails to establish a prima facie showing of obviousness for the following reasons.

First, the Stubley et al. disclosure does not overcome the limitations of the base references to Baker et al. and Engellenner et al. Stubley et al. relates to a module which makes observations to determine a likelihood of a match for speech received. The differences in the newly presented present invention claim 21(i) are not overcome by Stubley et al.

Second, there is no suggestion, teaching or need, expressed or implied, in either the Baker et al. patent, the Engellenner et al. patent or the Stubley et al. patent to utilize the teachings of any of the others.

Second, there is no suggestion, teaching or need, expressed or implied, in either the Baker et al. patent, the Engellenner et al. patent or the Stubley et al. patent to utilize the teachings of any of the others. The Baker et al. patent has no disclosure on a speech recognition processor. Thus, there is no suggestion to combine that disclosure with Engellenner et al. or Stubley et al. Furthermore, the Engellenner et al. disclosure has its own likelihood processor. Thus, there is no motivation or

reason to substitute the tokens of raw acoustics signals of Stublely et al. in the Engellenner et al. system.

Thus, the Applicants respectfully submit that the Stublely et al. reference be withdrawn.

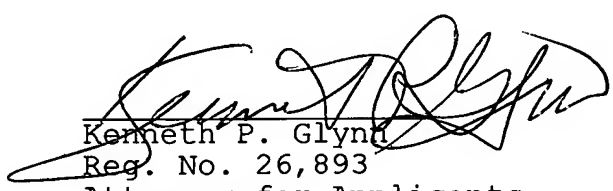
CONCLUSION

In view of the above amendments, remarks, and replacement drawings , the Applicants believe that newly presented Claims 31 through 50 are allowable because none of the of the prior art , nor combinations cited by the Examiner are anticipated or are rendered obvious. Therefore, it is respectfully urged that the current rejections be withdrawn and that the claims be allowed. An early and favorable reply is hereby solicited.

Thank you.

Respectfully submitted,

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